

1. What is the density of a piece of wood that has a mass of 25.0 grams and a volume of 29.4 cm³?

2. A piece of wood that measures 3.0 cm by 6.0 cm by 4.0 cm has a mass of 80.0 grams. What is the density of the wood? Would the piece of wood float in water? (volume = L x W x H)

Density_____

Circle one **Sink** or **Float**

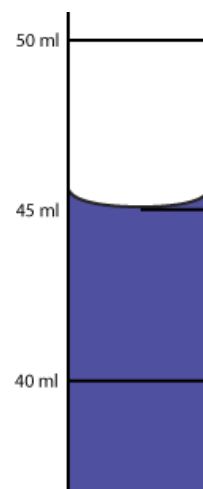
3. A cup of gold colored metal beads was measured to have a mass 425 grams. The graduated cylinder was initially at 50mL and ended at 98mL. Given the following densities, identify the metal.

Gold: 19.3 g/mL

Copper: 8.86 g/mL

Bronze: 9.87 g/mL

4. The volume of a solution was measured in a graduated cylinder (shown above). If the mass of solution is measured to be 60.75 grams, what is the density of the solution?



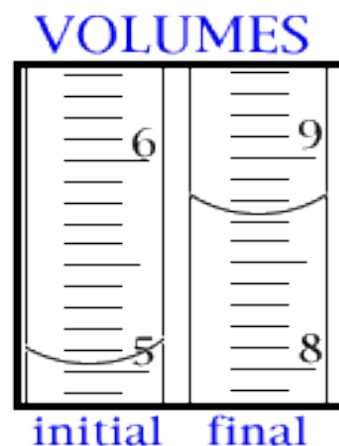
5. A cube has a side of 5 cm. It has a mass of 250 grams. The density of the cube is _____

- a. 50 g/cm³ and will float in water
- b. 2.0 g/cm³ and will float in water
- c. 50 g/cm³ and will sink in water
- d. 2.0 g/cm³ and will sink in water

6. Which of the following would float on pure water? Show work for each then circle the correct answer.

Sink or Float	A substance with a mass of 534.23 grams and a volume of 522.3 mL
Sink or Float	A substance with a volume of 3.35 mL and a mass of 22.64 g.
Sink or Float	A substance with a volume of 436.2 mL and a mass of 418.23 g.
Sink or Float	A substance with a mass of 1.33 g. and a volume of 1.38 mL.

7. Nathan determines the volume of a small piece of silver using water displacement. The graduations are shown. The mass is 2.8 g. What is the density?



Challenge: A little aluminum boat (mass of 14.50 g) has a volume of 450.00 cm³. The boat is placed in a small pool of water and carefully filled with pennies. If each penny has a mass of 2.50 g, how many pennies can be added to the boat before it sinks?